



DIVISION OF SOLID AND HAZARDOUS WASTE

RESPONSE TO COMMENTS

Received on the

APPLICATION AND DRAFT PERMIT

for the

PURGATORY CLASS VI LANDFILL

A 30-day public comment period on the permit application and draft permit for the proposed Purgatory Class VI Landfill, submitted by ONP, L.L.C was held from February 18, 2005 to March 21, 2005. A public hearing was held at the St. George City Council Chambers in St. George, Utah at 7:00 PM on Thursday, March 10, 2005. This document summarizes and responds from the March 10, 2005 public hearing and received written comments. Some of these comments have been paraphrased or grouped by related topics. Specific written comments can be viewed at the Division office, located at 288 North 1460 West, Salt Lake City, Utah, during normal business hours.

VERBAL & WRITTEN COMMENTS

General Statement of Regulatory Authority and Basis

Purgatory Class VI landfill is permitted to dispose of the following wastes: waste from the construction or demolition of structures; yard waste; waste tires (when the requirements of R315-320 Utah Administrative Code (UAC) are met); and petroleum contaminated soils (as allowed in R315-315-8(3) UAC). These wastes have been specifically allowed in this class of landfill because of the lack of environmental hazard that they present. Wastes of this type have been studied by the US EPA and have been found to present very little potential to contaminate the ground water below the site. Additionally leachate generated from these sites has not been shown to contaminate surface waters nor do these sites present odor or litter problems that accompany the disposal of other non-hazardous wastes such as municipal waste. The siting, operation, monitoring and closure requirements that are placed on Class VI landfills reflect the lower potential for contamination that these facilities present.

State rules that govern solid waste facilities do not address several areas that are of concern to citizens when they consider the construction and operation of a landfill in their area. Issues such as road traffic, visual effects, land use, and economic effects are not addressed by State rules. The Solid and Hazardous Waste Act, the state statute that governs the areas that the solid waste rules may cover, does not grant authority to the Division to make rules addressing such matters. Many of these issues are or should be part of the local planning and zoning process.

1. Comment:

This landfill is for only 20 acres and isn't very big. How long will it take to fill?

Response:

The volume available for disposal is shown in the permit application, Appendix D. The owner has also given an estimate in Appendix D of the time that will be required to fill the site. The life of a landfill can vary for reasons such as the rate of waste received each year, degree of compaction, types of waste/material actually received compared to pre-operation estimates.

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.

2. Comment:

The owners of this landfill got their permits backwards – that they needed to get it first from the State of Utah. The EPA wants to make sure all permits are done in order.

Response:

UAC R315-301-5 and state law [19-6-108, Utah Code Annotated (UCA)] require that all solid waste disposal facilities have a permit to operate. For commercial solid waste disposal facilities, state law also requires the approval of the legislature and governor. Their approval is to be subsequent to the approval of the executive secretary of the Solid and Hazardous Waste Control Board. However, the bill that passed in the 2005 General Session of the Legislature (HCR 3) and signed by the governor included language which allowed the legislature and governor to give their approval contingent upon the executive secretary issuing the final permit for this landfill by July 1, 2005. Both the legislature and the governor have given their required approval in accordance with enacted legislation.

No approval by the U.S. EPA is required for this landfill.

Determination:

No changes are necessary to the permit.

3. Comments:

The proposed C & D Landfill is located near some very pristine country and scenic trail that is a part of the Washington City trail system.

Have there been sufficient studies done with the impacts not just to the environment but also to the view-environment as well as the fact that the BLM owns property south of the site. According to BLM standards of 1984, one of the areas would be greatly impacted by the development of the landfill.

The proposed landfill is located less than a mile from the Virgin River. In the report it states the, "floodplain associated with the Virgin River is not proximate to the site nor do any perennial streams flow through the site." There is no data presented to verify this statement and the floodplain is not identified on the plans.

Response:

Aesthetic values such as pristine country and scenic trails are not part of the state siting criteria for nonhazardous waste landfills. However, such issues may be considerations addressed by the local government in granting any required approvals. (See "General Statement of Authority and Basis.") Additionally, an applicant must provide a plan to address dust and litter control as required by the state solid waste rules. Sections 3.8.6 and 3.8.7, Page 18, Part III of the permit application describes dust and litter control measures.

UAC R315-305-4(1) requires wetlands, flood plains, and depth to ground water to be addressed in the application. The application, as submitted, adequately addresses wetlands and depth to ground water. The commenter is correct that the issue of the position of the landfill in relation to a 100-year flood plain was not addressed. In response to the flood plain comment, the applicant was asked to further research and define the position of the proposed landfill in relation to the 100-year flood plain. In a response received April 25, 2005, the applicant submitted a map with the 100-year flood plain projected from the nearest available data source. The map shows the projected flood plain to be well outside of the landfill boundaries.

Determination:

Wetland information and depth to ground water data, as presented in the application, meet the requirements of the rules. Information submitted by the applicant, in response to a request from the Division, showing the position of the landfill in relation to the projected 100-year flood plain meets the requirement of the rules. No changes are necessary to the permit.

4. Comment:

I own approximately 800 acres surrounding the area and feel like the landfill in that space would greatly impact the values of the land that I have.

Response:

The Solid and Hazardous Waste Act and the administrative rules adopted under the Act do not give the executive secretary authority to consider the impact of disposal facilities to land values on the surrounding areas. Local governments in considering zoning or other approvals are the appropriate venue to address these types of impacts.

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.

5. Comments:

There is a deep well within 800-900 feet of the proposed site, and nothing in the proposed document has addressed groundwater contamination or potential of polluting that well.

The proposed draft didn't have anything dealing with surface and ground water contamination.

Even if there are no perennial streams there are ephemeral-intermittent streams. In rain events these ephemeral-intermittent streams convey water directly to the Virgin River and do qualify as waters of the United States. These ephemeral-intermittent streams are primary drinking water sources for Southern Utah.

Another landfill closer to the Virgin River and riparian area is a concern.

Response:

There was not enough information provided about the deep well, in the public comment, to provide an informed response. This Class VI landfill, however, is not subject to the rules of conducting a geohydrological assessment, which includes groundwater monitoring wells, geology/geotechnical studies, and potential impacts as outlined in R315-310-4(2)(b). Please refer to "General Statement of Authority and Basis" for information on the basis of the rule. Regarding further information on surface water, please see the response to Comment 11.

With respect to riparian areas, location requirements pertaining to ecologically and scientifically significant natural areas, including wildlife management areas and habitat for threatened or endangered species, as designated by the Endangered Species Act of 1982 [R315-302-1(2)(a)(ii)], do not apply to this Class VI type landfill. Please see R315-302-1(1)(ii). See also "General Statement of Authority and Basis."

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.

6. Comments:

Washington County has a landfill with a tremendous area designated for it already, and it will serve the county well into the future. The county doesn't need another landfill where we have so little privately held property in the county – less than in the any other county in the state.

Another landfill isn't necessary. The county landfill does a good job in supplying the things that need to be done for the county.

We believe the current Washington County Landfill is sufficient to serve our needs.

Response:

The permittee has shown in the permit application that a market exists for a facility to dispose of construction and demolition waste in the Washington County area. Although a facility exists that could dispose of all of the construction and demolition

waste generated in the area, the owners of the proposed facility have presented data that demonstrates the facility can be operated for a profit.

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.

7. Comment:

The proposed landfill would be responsible for monitoring itself and making sure it wasn't contaminating the water. What measures would they take to monitor impacts to water? What water contamination controls does the DEQ have on this proposed landfill, and how will it be monitored?

Response:

Because this is a Class VI Landfill, it is not subject to conducting a geohydrological assessment (which includes groundwater monitoring) according to R315-310-4(2)(b). Please see response to Comment 5. See also "General Statement of Authority and Basis."

For surface water controls, please see our response in Comment 11. Additionally, Page 2 of Part III of the ONP Permit Application addresses the proposed surface water control measures.

Both the EPA and Utah solid waste regulatory programs require the disposal facility to conduct monitoring and inspections of surface water control features. Additionally, inspectors from the Division of Solid and Hazardous Waste monitor the operation and conditions of the landfill through periodic site inspections to ensure that surface water controls are in place and properly maintained.

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.

8. Comment:

The subject site is currently under consideration as part of a larger area proposed for annexation into Washington City.

Response:

As the permitting authority for solid waste landfill permits, the Executive Secretary of the Utah Solid and Hazardous Waste Control Board does not have legal jurisdiction over annexation issues.

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.

9. Comment:

The proposed C & D Landfill is located near some very pristine country and scenic trail that is a part of the Washington City trail system.

Response:

Location standard requirements of R315-305-4 do not address pristine country and scenic trails. (See "General Statement of Authority and Basis.")

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.

10. Comment:

The current road that will be serving that area is inadequate, and alternative transportation issues need to be addressed prior to approval.

Response:

Transportation issues are not under the purview of the Executive Secretary. (See "General Statement of Authority and Basis.") Such issues may be addressed as part of the issuance of zoning approval or in a conditional use permit or by the appropriate local government agencies.

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.

11. Comment:

An extremely unusual characteristic of the submittal is the lack of site-specific studies on the project. Not having drainage, environmental, geotechnical, wetland delineation, and cultural resource studies on a landfill type project seems unusual to the point of negligence in view of its environmental impact.

Response:

With respect to drainage and according to R315-305-4(3), a Class VI Landfill must be designed to prevent the run-on of all surface waters resulting from a maximum flow of a 25-year storm from going into the active area of the landfill. Regarding run-off of surface waters, the landfill is required to collect and treat, if necessary, all run-off up to the maximum flow resulting from a 25-year storm event. Run-on means any rainwater or other liquid that drains over land onto the active area of a landfill facility [R315-301-2(63)]. For this landfill, the applicant's run-on controls are berms that will intercept and divert run-on water around the site. Run-off, on the other hand, includes any rainwater, leachate, or other liquid that has contacted solid waste. [See R315-301-2(62).] Since leachate is "run-off", it too would be controlled and captured through a proposed set of

ditches and a retention pond. The owner's run-on and run-off water controls are documented in Section 3.4.2, Page 12, Part II; Section 1.2 Page 2, Part III; and Appendix A of the ONP Permit Application.

As discussed in the "General Statement of Authority and Basis," Class VI landfills do not need to meet the same standards as other nonhazardous waste landfills that accept a broader variety of wastes. Geotechnical issues such as distance to a geological fault and ground water flow are not required for these facilities. For a discussion of depth to ground water and related issues, see response to Comment 5.

Regarding wetlands, section R315-301-2(84) explains that "'wetlands' mean those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." The property at the proposed site does not meet the definition of wetlands as quoted above. The applicant addresses wetlands on Page 2, Part III of the permit application. Based on our evaluation of this information, this location is not considered a wetland.

While environmental and cultural resource studies are required for other landfill Class types, Class VI landfills are not subject to such studies according to R315-302-1(1)(a)(iii) (See "General Statement of Authority and Basis.")

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.

12. Comments:

The environmental clearances were not part of the submittal package. Are Army Corp of Engineers, Utah Division of Fish and Wildlife and Utah State Engineers offices permits available for review?

Response:

A public notice of this proposed landfill was sent to other State agencies. In addition, we informed the applicant that they need to meet other government agency regulations if required.

Regarding the Corp of Engineers, section R315-302-1(2)(d) of the Rules prohibits any new landfill from being located within a wetland. Please see the response in Comment 11 addressing wetlands.

Regarding the Utah agency for fish and wildlife, this proposed Class VI commercial landfill will not be accepting dead animals. Therefore, it is not subject to rules relative to wildlife and habitat restrictions. [See R315-305-4(1)(b)(iv) and R315-302-1(2)(a)(ii) and the "General Statement of Authority and Basis."]

The state solid waste rules do not require applicants for a permit to construct, own, and operate a landfill to receive concurrent approval from the Utah State Engineer. The State Engineer oversees water rights in the state. Any landfill that plans to use a water right would be required to meet the rules administered by the Division of Water

Rights. However, this approval, if required for this landfill, is not part of the solid waste permitting process.

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.

13. Comment

The plans presented have not been stamped and sealed by a licensed engineer. In fact, the address and contact information of the preparer is not available in the submittal.

Response:

A Class VI landfill is not subject to the requirement for a signature and stamped seal by a professional engineer registered in the State of Utah. [See 315-310-3(1)(b).] Additionally, Class VI landfills are not required to have liners, leachate collection systems, ground water monitoring, or other elements that require engineering details; therefore, no engineering approval is required.

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.

14. Comment:

Who is responsible for the effectiveness and validity of the design? In the event that there is a design failure, will the State of Utah be responsible?

Response:

While the Executive Secretary is authorized to review and issue a permit, the owners are ultimately responsible for every aspect of their landfill. It is within the jurisdiction of the Executive Secretary to see that the rules and requirements are met before issuing a permit to the owner. As part of receiving a permit to operate, the owner is required to establish and provide financial assurance in the event that the owner defaults on his agreed landfill permit obligations and is unable to take the necessary financial measures to properly close the landfill and conduct post-closure care. Class VI landfills have little potential for contamination. (See "General Statement of Authority and Basis.")

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.

15. Comment:

The plans are difficult to review due to the lack of scale and basic mapping information, such as contours.

Response:

R315-310-4(2)(a)(i) requires the applicant to submit a topographic map illustrating specific contours elevations, landfill boundaries, and monitoring wells. While information was provided by the applicant in Appendix A, the information appeared incomplete. The permit applicant was asked to provide new maps with the information required by R315-310-4(2)(a)(i).

The required information was submitted by the applicant and is included in Appendix B.

Determination:

Based on our review of Appendices A and B and additional information, no further action is required by the Division. The information provided meets the requirements of the rules. No changes are necessary to the permit.

16. Comments:

There is no indication of the size of the storm-water detention pond. There are no drainage arrows. There are no pre-and post flows available. There is no data to support that runoff has not been increased to adjacent properties. How can this be reviewed and permitted at a state level with so much pertinent data missing?

From the plans the storm-water run-on control design appears to be faulty. The ditch fails to convey run-on to the storm-water detention pond. There are no control measures for storm-water run-off.

Response:

The commenter is correct. The size of the storm-water retention pond was not specified in the ONP permit application. While there are no drainage arrows illustrated on the topographic maps in Appendix A, the two run-off ditches run down gradient and adjacent to the landfill into a storm water retention pond. For further information, please see our response in Comment 11.

The Executive Secretary asked the applicant to provide details of the sizing of the storm water retention pond. According to the applicant's April 25, 2005 response, the site run-off control system, designed for a 25-year storm, was calculated using the TR-55 Graphical Peak Discharge method. The storm event was determined to be 1.97 inches (NOAA Atlas 14). The retention pond, designed to contain run-off from a 25-year storm event, was calculated to be 1.7 acre-feet. The retention pond at the site has been sized to hold 1.8 acre-feet. This falls within acceptable limits of the required 25-year storm retention pond capacity.

Determination:

Based on review of the additional information, the application meets the requirements of the rules. No changes are necessary to the permit.

17. Comment

There is no erosion control plan in the construction and post construction. A 4:1 slope is 25%. A 25% slope without erosion control protection will fail. Storm-water will erode through the proposed 2 feet of cover and expose the landfill debris.

Response:

There is an erosion control plan. The rules R315-305-5(5)(b)(iii) and 303-3(4)(a)(i)(B) require that the side slopes not exceed 33%. Pages 2 and 4, Part III of the ONP permit application state that the proposed slope will be constructed to 4:1 (25%). R315-305-5(5)(b)(iv) requires that the soil cover be seeded with grass or rooted vegetation in a manner to help minimize erosion. Section 2.2, Page 4, Part III of the ONP permit application addresses this requirement – that the final cover will be seeded with indigenous grasses in soil suitable to sustain it. When the landfill is closed the owner is required to conduct periodic inspections of the facility and to correct any erosion damage to the cover or other components of the landfill cover design.

The Executive Secretary requires the owner to maintain and operate the landfill in a manner that ensures the required structural integrity and physical condition of the side slopes. In addition, landfill conditions and operations are routinely inspected by authorized state inspectors.

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.

18. Comment:

There are no plans for debris mitigation. There are no plans for mitigation of the final cover.

Response:

There are plans for debris mitigation. R315-305-5(3)(b) and (d) require the applicant to use control measures to prevent the emission of dusts and to collect scattered litter. Sections 3.8.6 and 3.8.7, Page 18, Part III of the permit application describes dust and litter mitigation controls. The landfill owner/operator is also required to periodically place a minimum of six inches of soil cover over the waste—in this case monthly or more frequently in order to avoid a fire hazard.

As a final cover, R315-305-5(5)(b) requires Class VI landfills to have a minimum of two feet of soil at the time of closure. Sections 1.1.2 and 1.1.2.1, Page 1, Part III of the permit application regarding the interim and final covering of the landfill meet the applicable requirements and are acceptable.

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.

19. Comment:

In the landfill closure costs, there are no provisions for any storm water protection structures, leachate collection systems, or groundwater monitoring systems, even though in the report they state that they are prepared to address these costs. The presented budgets seem ridiculously incomplete and low.

Response:

Appendix E of the permit application is based on standard forms provided by the Division. These forms are meant to address all possible landfill types and therefore contain many references that do not apply to this particular landfill type. Appendix E does not have closure costs for storm water protection structures, leachate collection systems, or groundwater monitoring systems as they are not required by the rules. (See "General Statement of Authority and Basis.") Since this landfill requires no lining, the "Leachate Collection System" would not apply; hence the "NA" is noted in the column *Unit Measure*.

Regarding storm water run-on and run-off protection structures and leachate collection systems applicable to this type of (Class VI) landfill, please see our response in Comment 11 for further information.

Regarding groundwater monitoring, please see our response in Comment 5. The "Groundwater Monitoring System" section in Landfill Closure Costs, Appendix E, indicates a groundwater monitoring system with wells. Since this landfill has no wells, a Groundwater Monitoring System does not apply; hence the "NA" is noted in the column *"Unit Measure"*.

The closure costs estimates submitted in the application included a break down of the landfill closure costs. The applicant requested bids from contractors to do the work outlined in the closure plan and the bid received is included as the estimated cost of closure. A lower closure cost or cost-savings benefit for this particular landfill is that soil needed for cover and final closure is already on-site, thus reducing expenses such as transportation, etc. Both the estimated landfill closure costs break down and the bid costs appear to conform to the rule, R315-309-2(3)(a). These closure costs are required to cover the greatest cost and expense for the largest 'exposed' area of the landfill in order for it to be closed by a third separate party should the owner default.

Determination:

Review of the applicant's proposed estimated closure and post-closure costs appears accurate meeting the requirements of R315-309-2(3). This comment stated that closure costs were 'incomplete and low', but it wasn't followed up with information supporting as to why (it was incomplete and low). Since these proposed estimated costs appear to be reasonable, the Executive Secretary has determined that no further action is required at this time. Each year owners are required to make closure and post-closure

cost adjustments. The Executive Secretary will bring to the owner's attention the *RS Means* construction data guide as another way to help assist him for future annual cost/inflation adjustments for the Washington County area. The information provided meets the requirements of the rules. No changes are necessary to the permit.

20. Comment:

As a financial assurance as to the validity and longevity of the Operator, I have serious concerns. Are they required to bond or provide other means of financial assurance to the State of Utah?

Response:

Rules R315-309 discuss the financial assurance mechanism for landfills in Utah. A number of mechanisms for financial assurance are available that the applicant can consider and select what best meets the landfill needs. The financial assurance mechanism that will be used to meet the financial assurance requirements must be approved by the executive secretary, and be in place prior to the receipt of any waste.

Determination:

The information provided meets the requirements of the rules. No changes are necessary to the permit.